

REMARKS

This application has been amended in a manner that is believed to place it in condition for allowance at the time of the next Official Action.

Claims 29, 38, 41 and 42 have been amended. New claims 49 and 50 have been added.

Claim 29 has been amended to recite an anhydrous composition that comprises a bactericidal N-formal, a fungicide, a stabilizer, and a solvent. Support for the changes to claim 29 may be found in the present specification at page 6, line 24.

New claim 49 relates to a stable microbicidal composition wherein the bactericidal is 2, 2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)tri-ethanol. Claim 50 is further directed to a stable microbicidal composition. Support for claim 49 may be found in original claim 29 and claim 30. Support for claim 50 may be found in original claim 29.

Applicants believe that the proposed combination of cited publications in the outstanding Official Action fail to disclose or suggest the claimed invention. As noted above, claims 29-48 have been amended to recite an anhydrous composition. It is believed that the cited publications in the outstanding Official Action do not teach an anhydrous composition as set forth in the claimed invention. In fact, applicants respectfully submit that the proposed combination of references

would actually lead one of ordinary skill in the art away from the invention as set forth in claims 29-48.

Applicants respectfully submit that the list of publications set forth in the rejection fails to teach the claimed anhydrous composition. For example, LUTZ et al. teach that water is a main ingredient of the composition (U.S. Patent 6,114,366, column 4, lines 45-50). REEVE is directed to sulfur-based stabilizers for 3-isothiazolones. REEVE teaches that water may be utilized as a solvent (U.S. Patent 5,210,094, column 4, lines 20-23). Moreover, ROTHENBURGER et al. teach that water is a preferred solvent for use in the stabilization of isothiazolone (U.S. Patent 6,121,302 column 4, lines 50-55). As to the GB 1505069 patent, an oil-in-water emulsion which improves bacterial resistance is disclosed.

Thus, it cannot be said that the proposed combination of publications in the outstanding Official Action teaches an anhydrous composition comprising a bactericidal N-formal, a fungicide, a stabilizer, and a solvent. Thus, it is respectfully submitted that the outstanding Official Action fails to render obvious claims 29-48.

As to claim 49, applicants believe that the proposed combination of cited publications in the outstanding Official Action fails to disclose or suggest the claimed invention. Claim 49 is directed to a stable microbicidal composition. The stable microbicidal composition comprises a bactericidal N-formal, a

fungicide, and a stabilizer. The bactericidal N-formal is 2, 2', 2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)tri-ethanol. It is believed that the cited publications, alone or in combination with each other, fail to disclose or suggest the claimed invention.

Claim 50 is directed to a stable microbicidal composition. The stable microbicidal composition comprises a bactericidal N-formal, a fungicide and a stabilizer. Claim 50 reflects original claim 29 in its full breadth. It is respectfully submitted that the outstanding Official Action fails to meet its burden in showing that the claimed microbicidal composition has been rendered obvious.

As the Examiner is aware, the burden is on the Patent Office to establish a *prima facie* case of obviousness. *In re Warner et al.*, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967). Moreover, the test is not whether each difference individually is obvious; rather, it is whether the claimed invention as a whole was obvious at the time the application was filed. *In re Buehler*, 515 F.2d 1134, 185 USPQ 781 (CCPA 1975). It is respectfully submitted that the outstanding Official Action fails to render obvious the claimed invention as a whole.

While the outstanding Official Action provides an extensive list of publications which may disclose individual recitations of the claimed invention, it is believed that the outstanding Official Action fails to establish that one of

ordinary skill in the art would possess the necessary motivation to combine these publications.

In fact, the outstanding Official Action states on page 3 that the difference between the cited publications and the claimed invention is that the publications do not expressly disclose the combination of the specified N-formals, isothiazolones and specified stabilizers. Despite this teaching in the prior art, the Official Action contends that the publications suggest the claimed composition as the specified N-formals are known in the art to be used as biocides in combination with the specified stabilizers or specified isothiazolones.

The Official Action reasons that one of ordinary skill in the art would be motivated to combine all three with the expectation that the combination would be more effective than either one alone. In support of this contention, the Official Action cites to LUTZ et al., col. 3, lines 22-68, col. 4, lines 1-28; REEVE, col. 3, col. 4, lines 1-30' and DE 2337755 abstract.

However, it is respectfully submitted that the Official Action fails to establish why one of ordinary skill in the art would be motivated to combine and modify the teachings of the cited publications.

LUTZ et al. is directed to shampoos which include a preservative system. The preservatives may be added to the

shampoo already formulated, or the preservatives can be added to the shampoo separately (column 3, lines 22-68).

REEVE is directed to sulfur-based stabilizers for 3-isothiazolones. REEVE is concerned with the stabilization of 3-isothiazolone compounds utilized in metalworking fluid concentrates.

As to the DE 2337755 publication, applicants note that the document discloses that N-formals or O-formals may act with mercapto-pyridine as disinfectants. Moreover, the document fails even to mention the addition of fungicides or stabilizers.

As to the additional publications, the DE 19534532 document discloses that solubilizers may be added in combination with isothiazolones. The compositions may be added to lubricants. RAAD et al. is directed for the control of biofouling in pipes for aqueous systems via the use of compositions and methods that include the combination of a chelator with an antimicrobial agent. GRIER et al. disclose precise compounds which may be used as antimicrobial agents for metalworking compositions. ROTHENBURGER et al. disclose stabilized formulations of isothiazolones. ROTHENBURGER et al. state that a biocidal may be prepared by mixing one or more isothiazolones with a formaldehyde donor such as an alkanol-substitute dimethyl hydantoin.

Upon reviewing the newly cited references of PAULUS et al. and GB 1505069, it is apparent that PAULUS et al. is

concerned with a variety of industrial compounds. The GB 1505069 publication relates to oil-in-water emulsions with improved bacterial resistance.

Upon considering the disparate fields of endeavor of each publication, it is believed that one of ordinary skill in the art would lack the motivation to combine their respective teachings. Thus, despite the extensive list of publications cited, it is believed that the outstanding Official Action fails to identify the necessary motivation for one of ordinary skill in the art to combine and modify the teaching of each publication.

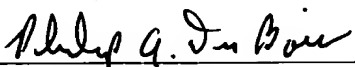
In view of the present amendment and the foregoing remarks, therefore, it is believed that this application is now in condition for allowance, with claims 29-50, as presented. Allowance and passage to issue on that basis are accordingly respectfully requested.

Attached hereto is a marked-up version of the changes made to the claims. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Respectfully submitted,

YOUNG & THOMPSON

By


Philip A. DuBois
Agent for Applicants
Registration No. 50,696
745 South 23rd Street
Arlington, VA 22202
Telephone: 703/521-2297

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claim 29 has been amended as follows:

29. (amended) [A stable microbicidal] An anhydrous composition, comprising:

a) a bactericidal N-formal selected from the group consisting of 3,3'-methylenebis (5-methyloxazolidine) and 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)tri-ethanol, wherein said N-formal is present in a concentration of from 40% to 90% by weight,

b) a fungicide selected from the group consisting of 2-octyl-2H-isothiazolin-3-one, benzisothiazolone, 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one, wherein said fungicide is present in an amount of from 5 to 10% by weight, [and]

c) a stabilizer selected from the group consisting of 2-mercaptopyridine N-oxide, metal or ammonium salts of 2-mercaptopyridine N-oxide, metal salt complexes of 2-mercaptopyridine N-oxide, 2,2'-dithiobis(pyridine N-oxide), 2-mercaptobenzothiazole, 2-thiocyanomethyl-thiobenzothiazole, NaBrO₃ and mixtures thereof, wherein said stabilizer is present in an amount of 5 to 10% by weight, and

d) a solvent selected from the group consisting of phenoxy ethanol phenoxy propanol, 1,2-propyleneglycol, 1-methoxy-

2-propanol, diethylene glycol butyl ether and dipropyleneglycol in an amount less than 25% by weight of solvent.

Claim 38 has been amended as follows:

38. (amended) The [method] composition according to claim 37, wherein the corrosive protective agent is selected from the group consisting of phosphonobutanetricarboxylic acid, salts of phosphonobutanetricarboxylic acids, triazole, benzotriazole, methylbenzotriazole, 2,2'-[[(methyl-1H-benzotriazol-1-yl)methyl]imino]bisethanol, N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine, and carboxy-4-hexylcyclohe-2-en-1-octanoic acid.

Claim 41 has been amended as follows:

41. (amended) The [method] composition according to claim 29, wherein said composition is in the form of a concentrate.

Claim 42 has been amended as follows:

42. (amended) The [method] composition according to claim 29, wherein said composition is in the form of a ready-to-use solution.